

C1029

COVER SHEET (PAGE 1 of 2)

May 1998 CALFED ECOSYSTEM RESTORATION PROPOSAL SOLICITATION

Proposal Title: Riparian Habitat Restoration on the Sacramento River: Planting, Monitoring,  
 Applicant Name: The Nature Conservancy and U.S. Fish and Wildlife Service and Demonstration  
 Mailing Address: 201 Mission Street, 4th Floor, San Francisco, CA 94105  
 Telephone: 415/777-0487  
 Fax: 415/777-0244

Amount of funding requested: \$ 2,122,000 for three years

Indicate the Topic for which you are applying (check only one box). Note that this is an important decision: see page \_\_\_ of the Proposal Solicitation Package for more information.

- |   |   |
|---|---|
| <input type="checkbox"/> Fish Passage Assessment  | <input type="checkbox"/> Fish Passage Improvements    |
| <input checked="" type="checkbox"/> Floodplain and Habitat Restoration                    | <input type="checkbox"/> Gravel Restoration           |
| <input type="checkbox"/> Fish Harvest   | <input type="checkbox"/> Species Life History Studies |
| <input type="checkbox"/> Watershed Planning/Implementation                                | <input type="checkbox"/> Education                    |
| <input type="checkbox"/> Fish Screen Evaluations - Alternatives and Biological Priorities |   |

Indicate the geographic area of your proposal (check only one box):

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Sacramento River Mainstem   | <input type="checkbox"/> Sacramento Tributary: _____      |
| <input type="checkbox"/> Delta                                  | <input type="checkbox"/> East Side Delta Tributary: _____ |
| <input type="checkbox"/> Suisun Marsh and Bay                   | <input type="checkbox"/> San Joaquin Tributary: _____     |
| <input type="checkbox"/> San Joaquin River Mainstem             | <input type="checkbox"/> Other: _____                     |
| <input type="checkbox"/> Landscape (entire Bay-Delta watershed) | <input type="checkbox"/> North Bay: _____                 |

Indicate the primary species which the proposal addresses (check no more than two boxes):

- |  |   |
|--|---|
| <input type="checkbox"/> San Joaquin and East-side Delta tributaries fall-run chinook salmon |   |
| <input type="checkbox"/> Winter-run chinook salmon   | <input checked="" type="checkbox"/> Spring-run chinook salmon |
| <input type="checkbox"/> Late-fall run chinook salmon  | <input type="checkbox"/> Fall-run chinook salmon              |
| <input type="checkbox"/> Delta smelt   | <input type="checkbox"/> Longfin smelt                        |
| <input type="checkbox"/> Splittail   | <input checked="" type="checkbox"/> Steelhead trout           |
| <input type="checkbox"/> Green sturgeon  | <input type="checkbox"/> Striped bass                         |
| <input type="checkbox"/> Migratory birds   |   |

A host of other CALFED primary species are also addressed, and are listed in Section IV-d.

## II. Executive Summary

### **a. Project title: Riparian Habitat Restoration on the Sacramento River: Planting, Monitoring, and Demonstration**

**Co-applicants:** The Nature Conservancy and the U.S. Fish and Wildlife Service

### **b. Project description and primary biological/ecological objectives**

The applicants request \$2,122,000 in CALFED funds to advance riparian habitat restoration on Refuge lands along the Sacramento River between Red Bluff and Colusa. This project includes three elements: *direct planting* of riparian species on approximately 400 acres of flood-prone agricultural lands; development and initial implementation of a *floodplain restoration monitoring program*; and development of an *educational video*.

The primary objectives of the project are to:

- Address priority stressors identified by CALFED including loss of existing riparian zone, lack of regeneration potential, and channel aggradation due to fine sediments.
- Increase shaded riverine aquatic (SRA) habitat and improve degraded instream aquatic conditions, thereby enhancing spawning, rearing, and foraging habitat for anadromous and resident fish species, including four races of chinook salmon.
- Reduce flood-related losses by moving economic activity out of flood-prone areas.
- Reduce fragmentation and enhance a key migratory pathway for a host of aquatic and riparian species.
- Restore large, continuous blocks of riparian woodland for the benefit of riparian and terrestrial species, including the neo-tropical migratory bird guild.
- Conduct outreach to local stakeholders in order to gain local understanding and support for project continuation.

While the proposed project stands alone, it is a companion to another proposal submitted by the applicants: **Floodplain Acquisition, Management, and Monitoring on the Sacramento River.**

### **c. Approach/tasks/schedule**

Implementation of *direct planting* on approximately 400 acres of federally-owned lands within the Sacramento River National Wildlife Refuge will be conducted over three years. The following tasks will be completed in year one: site assessment; unit plan development (i.e. implementation plan for restoration at the site); plant materials collection; plant materials propagation; field preparation; and planting. In years two and three, sites will be irrigated and weeded. Monitoring will occur in all three years.

We will develop and begin implementing project-wide *floodplain restoration monitoring* to assess the success of channel meander and floodplain habitat restoration efforts in achieving multiple CALFED objectives.

Applicants will complete a 15-minute *educational video* and two 2-minute spots. Footage for the video will be shot in the winter and spring following award of funds; the video will be completed by July of that year. The video will be selectively distributed; 50 copies will initially be produced, and used as an outreach tool available to all programs, partners, and the public.

### **d. Justification for project and funding by CALFED**

The loss and degradation of aquatic and riparian habitat on the Sacramento River have reached critical levels. Shaded riverine aquatic, floodplain, and riparian woodland habitats have declined as human demands on the river's resources have intensified, with associated declines in aquatic and terrestrial species. Anadromous fish, including four genetic races of chinook salmon and steelhead trout (federally threatened), depend on the river as a migration corridor. Resident fish species, as well as migratory birds

and other terrestrial species also depend on a healthy river corridor. Major flood events have had a significant negative impact on levee integrity, agricultural revenue, and infrastructure in the floodplain. This project, and the larger multi-partner Sacramento River restoration effort of which it is a part, will address these problems.

***e. Budget costs and third-party impacts***

Applicants are requesting \$2,122,000 to implement the project. Positive third-party impacts include reducing flood-related agricultural losses, and bolstering the local economy through contracting with local growers for restoration work. Potential adverse third-party impacts, such as displacement of local agriculture and flood impacts, are discussed in this proposal.

***f. Applicant qualifications***

The Nature Conservancy initiated restoration efforts along the Sacramento River in 1989; to date, 2,460 acres have been restored using direct planting techniques. The Conservancy and the U.S. Fish and Wildlife Service began formal cooperation on the restoration and management of Sacramento River National Wildlife Refuge lands in 1991. The Conservancy began to acquire land along the Sacramento River in 1988 and has assisted the Service in acquiring 8,600 acres for conservation in the Sacramento River National Wildlife Refuge.

***g. Monitoring and data evaluation***

In addition to the new floodplain monitoring described above, applicants will continue to participate in several ongoing monitoring efforts including monitoring revegetation success, migratory and resident bird use, and erosion control studies.

***h. Local support/coordination with other programs/Compatibility with CALFED objectives***

This project enjoys the support of local landowners, including local government and non-profit organizations. The goals of the project support the objectives and programs of the Central Valley Project Improvement Act, SB 1086, the California Riparian Habitat Conservation Program, the Central Valley Habitat and Riparian joint ventures, the Sacramento River National Wildlife Refuge, the Army Corps of Engineers, and the National Fish and Wildlife Foundation. The project does not conflict with any CALFED objectives, and directly supports those pertaining to ecosystem health and water quality. This project will be coordinated with local landowners, public agencies and other interested parties through the SB 1086 process.

### III. Title Page

**a. Title of project:** Riparian Habitat Restoration on the Sacramento River: Planting, Monitoring, and Demonstration

**Applicants:** The Nature Conservancy and the U.S. Fish and Wildlife Service

**b. Name of applicant/principal investigators; address; phone/fax/e-mail; organizational, institutional or corporate affiliations of applicant/principal investigators.**

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**U.S. Fish and Wildlife Service**  
Route 1, Box 311  
Willows, CA 95988  
Contact: Gary W. Kramer, Refuge Manager  
Sacramento National Wildlife Refuge Complex  
phone (916) 934-2801  
fax (916) 934-7814

**c. Type of organization and tax status**

The Nature Conservancy is a non-profit 501(c3) organization.

The U.S. Fish and Wildlife Service is an agency of the United States Department of Interior.

**d. Tax identification number and/or contractor license, as applicable**

The Nature Conservancy's taxpayer identification number: 53-0242652.

**e. Participants/collaborators in implementation**

Implementation participants include the U.S. Fish and Wildlife Service and The Nature Conservancy. Restoration efforts will be coordinated with other public and private entities involved in floodplain management along the river. Collaborators in the project include SB 1086 process participants.

## IV. Project Description

### *a. Project description and approach*

The applicants request \$2,122,000 in CALFED funds to conduct riparian habitat restoration on Refuge lands along the Sacramento River between Red Bluff and Colusa. (see Figure 1, following Section IV). The three elements include: 1) *direct planting* of riparian forest; 2) a project-wide *floodplain restoration monitoring program*; and 3) an *educational video*. These elements are discussed below. This application builds on a similar application submitted to CALFED in 1997.

The primary objectives of the project are to:

- Address priority stressors identified by CALFED including loss of existing riparian zone, lack of regeneration potential, and channel aggradation due to fine sediments.
- Increase shaded riverine aquatic (SRA) habitat and improve degraded instream aquatic conditions, thereby enhancing spawning, rearing, and foraging habitat for anadromous and resident fish species, including four races of chinook salmon.
- Reduce flood-related losses by moving agricultural production out of flood-prone areas.
- Reduce fragmentation of and enhance a key migratory pathway for a host of aquatic and riparian species.
- Restore large, continuous blocks of riparian woodland for the benefit of riparian and terrestrial species, including the neo-tropical migratory bird guild.
- Conduct outreach to local stakeholders in order to gain local understanding and support for project continuation.

**Direct planting** The applicants will subcontract with local growers to plant approximately 400 acres of flood-prone agricultural lands to native riparian forest on lands currently owned by the U.S. Fish and Wildlife Service in the Sacramento River National Wildlife Refuge. Active restoration (i.e. planting) is a necessary component of natural system restoration where natural regeneration is slow to occur, or where it is precluded by current land uses such as orchards, or where exotic vegetation dominates or threatens to dominate a site.

**Floodplain restoration monitoring** We will develop and begin implementing a project-wide monitoring plan to measure the progress of channel meander and floodplain habitat restoration efforts in achieving multiple CALFED objectives.

**Educational video** In order to demonstrate the collaborative efforts and benefits of riparian restoration to a broad audience, applicants will produce and distribute a 15-minute educational video and two 2-minute spots that describe the public and private partnerships engaged in restoration efforts within the Sacramento River Conservation Area. The video will focus on the habitat value of restoration, and will include programs involved in restoration efforts and highlight the SB 1086 Upper Sacramento River Advisory Council and Riparian Habitat Committee that facilitates these efforts between public and private entities.

The video will be directed to audiences involved in or affected by restoration efforts, both on the Sacramento River and in other watersheds in the Central Valley. Applicants' goal in producing and distributing the video is to enhance the public's understanding of riparian restoration vis à vis floodplain processes. Increased public understanding of floodplain processes will broaden public support, and ensure the long-term success of restoration work along the river and elsewhere.

Funds from CALFED will support a project with a considerable track record. Through a cooperative land management agreement initiated in 1991 between the USFWS and the Conservancy, the latter restores marginal agricultural property along the river to riparian forest. The Conservancy uses agricultural income from its management of the properties to fund the restoration. Current revenues from this

**SACRAMENTO RIVER RIPARIAN RESTORATION**

IV-1

program are approximately \$350,000 per year; these funds enable us to restore 100 acres annually (at an average of \$3,500/acre). Given our goal of restoring 10,000 acres, it will take more than 100 years to achieve this goal using only crop revenues. Funding from CALFED will dramatically accelerate progress towards this goal. Speeding up the restoration will bring more immediate benefits to rare terrestrial and aquatic species. (See Figure 3, following Section IV.) While the proposed project stands alone, it is a companion to a second proposal submitted by the applicants: **Floodplain Acquisition, Management, and Monitoring on the Sacramento River.**

These efforts will be coordinated with those of other entities working along the river, including the California Department of Water Resources, California State University at Chico (CSUC), Point Reyes Bird Observatory, the Wildlife Conservation Board (California Department of Fish and Game), the SB 1086 process, and local private landowners.

***b. Proposed scope of work***

**Task 1: Direct planting (\$1,862,000)** The applicants will subcontract with local growers and others to conduct planting and site maintenance. Subcontractors will be chosen according to their ability to deliver a quality product at a reasonable price. Restoration work is done between early fall and late spring; the exact timing depends on precipitation in a given year. The work will occur on both crop and orchard lands, the latter requiring more intensive clearance and preparation and therefore, a higher per acre restoration cost. Sites to be restored will be selected based on criteria such as location relative to river meander, likelihood of natural plant regeneration, proximity to existing forest or ability to connect habitat fragments, damage incurred by the 1997 floods, and biological and economic feasibility of restoration. The project will be implemented in accordance with SB 1086 restoration guidelines. (See Figure 2, following Section IV.)

The cost range for restoration is \$2,500/acre to \$4,500/acre. Initial steps in the restoration process are generally completed in two to three years, depending on the quality of the site. These subtasks include:

- |   |                      |
|---|----------------------|
| 1. Site evaluation                            | 7. Layout            |
| 2. Restoration plan development               | 8. Planting          |
| 3. Seed collection                            | 9. Irrigation        |
| 4. Plant materials propagation (nursery work) | 10. Weed control     |
| 5. Cuttings collection                        | 11. Field monitoring |
| 6. Field preparation                          |                      |

The first eight steps will take place in year one, and the last three in years two and three. The budget for year one is approximately \$1,062,000, and for years two and three is approximately \$400,000/yr. The Nature Conservancy will oversee the following activities on Refuge lands: evaluation of the restoration sites, development of the restoration plan, collection of seeds, negotiation and management of contracts with nurseries for production of container stock, management of contracts with growers involved in restoration, and monitoring of sites. Sites will be managed in the first three years according to a site unit plan developed by the Conservancy. The Conservancy will contract with California State University at Chico for nursery work given their proven success in handling plant propagation. Financial and programmatic reports will be submitted quarterly detailing status of restoration efforts.

**Task 2: Floodplain restoration monitoring (\$100,000)** Applicants will assess current monitoring efforts in the project area, identify gaps, and hire a consultant to develop a project-wide monitoring plan in consultation with CALFED. The plan will be completed by the end of first year following award of funds. Implementation will begin when the plan is completed and will continue for the remaining two years, and may continue depending on availability of additional funding. Deliverables will include the monitoring plan and initial monitoring results. This component is also a part of the "Floodplain Acquisition and Management on the

Sacramento River” proposal--funding reflected here will only be necessary if this monitoring program is not funded in the other proposal.

**Task 3: Educational video (\$20,000)** The applicants will contract with Jack Ofield, Director of the Production Center at San Diego State University, to complete a 15-minute educational video and two 2-minute spots describing the restoration of riparian forest along the river, using footage of local stakeholders. Applicants will work with partners and SB 1086 members to develop the messages and storyline of the video and to identify key audiences. Footage for the video will be shot in winter and spring following award of funds; the video will be completed in by July of that year. Fifty copies will initially be produced, and made available as an outreach tool available to all programs and partners. The video will be distributed to key audiences including local groups and organizations, museums, interpretive centers such as the Discovery Center, local governments, and local television and PBS stations. Financial and programmatic reports will be submitted quarterly detailing status of video production and distribution.

**c. Location and/or geographic boundaries of project**

Restoration will be conducted on Refuge lands within the floodplain portion of the SB 1086 Conservation Area of the Sacramento River, between the towns of Redbluff and Colusa. Counties in the project area include Tehama, Butte, and Glenn.

**d. Expected benefits**

The following CALFED *stressors* (from the Proposal Solicitation Package) will be addressed through this project:

- ◆ *Loss of existing riparian zone, channel aggradation due to fine sediments, increased contaminants, increased nutrient or carbon input, and water temperature.*

These *habitats* will be addressed through this project:

- ◆ *Seasonal wetland and aquatic habitat, instream aquatic habitat, shaded riverine aquatic habitat, and riparian woodland habitat.*

The following priority *species* are addressed through this project:

- ◆ *Winter-run and spring-run chinook salmon, steelhead trout, green sturgeon, Sacramento late fall-run chinook salmon, white sturgeon, Sacramento splittail and migratory birds, as well as a host of other rare terrestrial species (see Figure 5, following Section IV).*

The main stem of the Sacramento River is important for anadromous fish in the following ways:

- ◆ Fall, late fall, winter, spring-run chinook salmon, and steelhead use the main stem to migrate to their respective tributaries.
- ◆ Winter-run salmon spawn in the section between Keswick and Red Bluff.
- ◆ Fall and late-fall run salmon will also spawn in the main stem.
- ◆ All races of juvenile salmon use the main stem as rearing and foraging habitat.

**Primary benefits — biological and physical**

- ◆ As the channel meanders into existing riparian forest and begins eroding the bank, *shaded riverine aquatic habitat*, critical for juvenile salmon, will develop as riparian trees are undercut, overhang, and fall into the river channel. With this increased habitat, *water temperatures will be moderated*, further enhancing *aquatic habitat* for juvenile salmon and steelhead.
- ◆ Increased vegetation diversity and connectivity *will enhance migratory corridor and productivity benefits* and will provide *superior habitat and foraging opportunities* for a host of species including the *neo-tropical migratory bird guild* and other terrestrial species, as well as young salmon as they ride flood waters out of the channel and over the floodplain.

- ♦ *Waterfowl*, including wood ducks and mallards, will benefit from an increase in *flooded riparian forest*.
- ♦ Riparian trees are an important source of *nutrients* in the river and the delta.
- ♦ Riparian vegetation will trap *fine sediments*, thereby *reducing channel aggradation* and *enhancing instream habitat*.
- ♦ Planting of native riparian species will result in *increased riparian woodland* and will *reduce habitat fragmentation*.
- ♦ Riparian forest also supports *game species* of wildlife such as ring-necked pheasant, wild turkey, California quail, and black-tailed deer.

#### **Secondary/Indirect benefits**

- ♦ Distribution of the educational video will *increase support for restoration practices*, throughout the watershed and elsewhere.

#### **Third party benefits — economic**

- ♦ *Insurance claims for and dollars spent on flood-related damages should decrease* as agricultural production shifts to higher ground and a greater number of acres are committed to floodplain habitat. Additionally, retirement of specific croplands like prune orchards will *help reduce downward price pressures* and crop surpluses.
- ♦ Restoration of this type *stimulates the area's economy* by providing opportunities for local growers, agricultural technicians, and of local irrigation and farm equipment companies. *Growers are a valuable asset because they provide skilled restoration work* as well as a commitment to and pride in the land. Applicants and local community members have been working together to restore critical riparian habitat through hand-planting techniques for several years. This involvement also illustrates *community buy-in* to the project, which is important to the project's long-term success.

#### **Benefits to CALFED non-ecosystem objectives**

- ♦ Observations of previously restored acres in the project area suggest that riparian vegetation will *slow down the flow of floodwaters* which will increase the river's capacity to hold water. Riparian vegetation binds the soil, *minimizing the scouring of soils* during flood events. Widening the floodplain will allow waters to flow over a greater surface area, *reducing pressure on existing levee systems*. A floodplain forest will help *filter floating debris and sediments from floodwaters*, thus protecting agricultural lands behind the riparian forest.
- ♦ Restoring properties inside the Sacramento River Conservation Area is an important first step in improving *water quality* by reducing agricultural inputs into the river (sustainable farming program/land use changes) and by trapping run-off of water containing sediment, pesticides and/or fertilizers in riparian filter strips.

#### **Benefits to other restoration programs**

Floodplain acquisition and restoration efforts support the goals of the following programs:

- ♦ *SB 1086*
- ♦ *Central Valley Project Improvement Act*
- ♦ *Central Valley Habitat Joint Venture*
- ♦ *Sacramento River National Wildlife Refuge*
- ♦ *California Habitat Riparian Conservation Program*
- ♦ *Riparian Habitat Joint Venture (Partners in Flight)*

#### **e. Background and biological/technical justification**

Before European settlement, the Sacramento River featured roughly 500,000 acres of contiguous riparian forest and supported more species diversity than any other river ecosystem in California. Today, an



estimated two percent of this forest type remains along the river (McGill 1979). Shaded riverine aquatic, floodplain, and riparian woodland habitats have declined as human demands on the river's resources have intensified, with consequent declines in aquatic and terrestrial species.

Anadromous fish, including steelhead trout and four genetic races of Chinook salmon, depend on the river as a migration corridor. Winter-run salmon are listed as threatened under the federal Endangered Species Act, and spring-run salmon and Sacramento splittail (resident) have also declined radically (spring-run is a candidate for state listing). Migratory birds, such as the western yellow-billed cuckoo (state listed threatened) have also suffered, as have myriad terrestrial species.

- **Alternatives considered**

Several approaches are possible to achieve the goals of this project; a few are listed below.

- ♦ **Restoration conducted by applicants.** An alternative approach to achieving these restoration goals consists of having the applicants conduct the planting instead of local growers. While this approach was used in the past, we do not consider it sustainable or practical given the increased scale of restoration activities. In addition, this approach would prevent participation and buy-in by local growers, elements that are crucial to the ultimate success of the proposed restoration efforts. It will also greatly reduce the economic benefits to local community.
- ♦ **Voluntary restoration by local landowners.** A slightly modified approach involves having landowners volunteer their time in restoration activities, instead of being paid. In this scenario applicants would have significantly less control of the lands to be restored. While this strategy has occasionally been employed in the project area, it does not hold the potential for larger-scale restoration over time, and it gives landowners little incentive to participate.
- ♦ **Use of passive restoration techniques.** A third approach involves the use of more passive restoration techniques: the acquisition of floodplain lands and, over time, the regeneration of meander zone and natural forest lands. This approach is the subject of a separate proposal submitted by the same applicants entitled "Floodplain Acquisition and Management on the Sacramento River." However, active restoration techniques are necessary where natural process restoration is impractical, or where the delay between process restoration and the subsequent initiation of forest regeneration is too great. A combination of these two methods is best suited to achieve restoration goals in the floodplain.
- ♦ **The proposed project.** For all the reasons enumerated in this proposal, contracting with local landowners is the best approach for direct planting. With regard to the other parts of the project, our proven track record on the river and presence in the community makes us the most appropriate entities to implement and oversee these elements.

- **Relevance to ERPP Objectives (March 1998, Volume II)**

- ♦ **Central Valley stream temperatures objective (p. 149):** Maintain, improve, and restore water temperature regimes to meet the life history needs of aquatic organisms. Increasing shaded riverine aquatic and riparian woodland habitats will help moderate stream temperatures at the river's edges.
- ♦ **Riparian and riverine aquatic habitats objective (p. 150):** Restore riparian scrub, woodland, and forest habitat along largely non-vegetated banks of the Sacramento River. Direct planting of native riparian species will aid in the restoration of riparian forest habitat.
- ♦ **Contaminants objective (p. 154):** Reduce concentration and loading of contaminants in the aquatic environment. A healthy riparian forest will act as a filter for agricultural and other contaminant run-off.
- ♦ **Species objectives--splittail (p. 158), white and green sturgeon (p. 158), chinook salmon (p. 160), steelhead trout (p. 163), striped bass (p. 164), American shad (p. 165), western yellow-billed cuckoo (p. 165), bank swallow (p. 166):** Assist in the recovery of, or restore the

distribution of these species. All of the elements of the proposed project, including those listed above, are designed to aid the restoration of these priority species.

- **Project status**

The restoration component of this project is ongoing. The Conservancy and the Service have formally been involved in active restoration of Refuge lands since 1991, and on Conservancy lands since 1989. As of this spring, 2,460 acres have been planted at ten different sites between Red Bluff and Colusa. Currently, four local growers are under contract to plant and maintain roughly 470 acres. Based on the consistent successes at these sites over the last eight years, we are confident that implementing this proposal will produce the benefits listed above.

Applicants submitted a successful proposal for active restoration to CALFED in 1997. Those funds, once awarded, will allow us to implement restoration on 200 acres in 1999. The current request will be used to implement restoration in 2000 or in the earliest season following award of funds.

***f. Monitoring and data evaluation***

In addition to the project-wide floodplain restoration monitoring program described above, The Nature Conservancy participates in a number of ongoing monitoring programs. For direct planting, progress of restoration sites on the Refuge is determined by measuring indicators of plant performance (e.g. height and density) at the end of the growing season. Plant performance (e.g. growth and survival) is summarized in reports submitted to the U.S. Fish and Wildlife Service at the time that long-term management responsibility is transferred to the Service.

- **Related monitoring efforts**

- ♦ Efforts are under way by the Conservancy and the Service to develop measures of success by which restoration plantings can be judged. These measures will be applied at the end of year five, after the plantings have been firmly established.
- ♦ For the third year in a row, Point Reyes Bird Observatory is monitoring bird use of restoration sites.
- ♦ Erosion studies are currently underway by the California Department of Water Resources. We are using these studies to inform our restoration targets. (See Table 2, following Section IV.)

***g. Implementability***

- All project activities will be consistent with the principles of the SB 1086 Handbook and management principles of the Sacramento River Conservation Area, the goals and objectives outlined by CALFED for the Sacramento River, and other agency management plans and initiatives in the project area.
- All lands are currently in Refuge ownership.
- This project is supported by a host of local entities including local landowners and public and private conservation entities along the river.
- The video produced as part of this proposal will be used as an outreach tool to educate and garner support from local communities and landowners regarding the benefits of restoration.
- Other funds are being sought (and have previously been awarded) from: CVPIA, National Fish and Wildlife Foundation, US Environmental Protection Agency, and US Army Corps of Engineers (which is seeking funding through environmental restoration authorities such as sections 1135 and 206 to participate in this project).
- All activities will comply with existing laws and regulations.

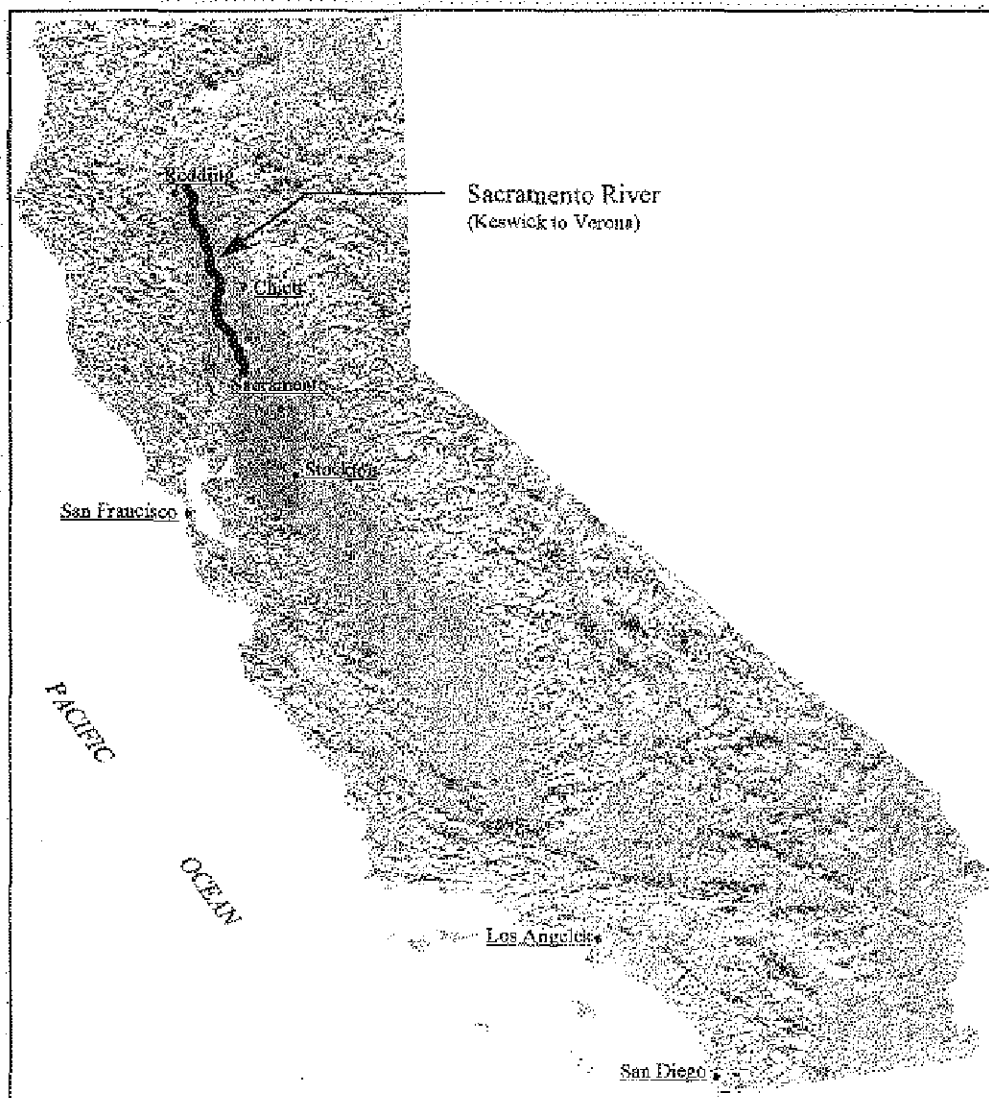
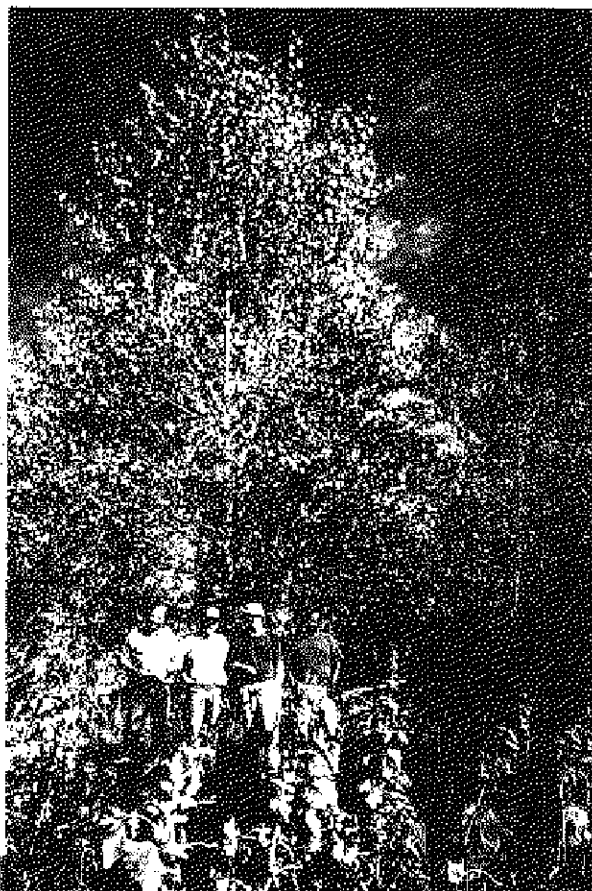
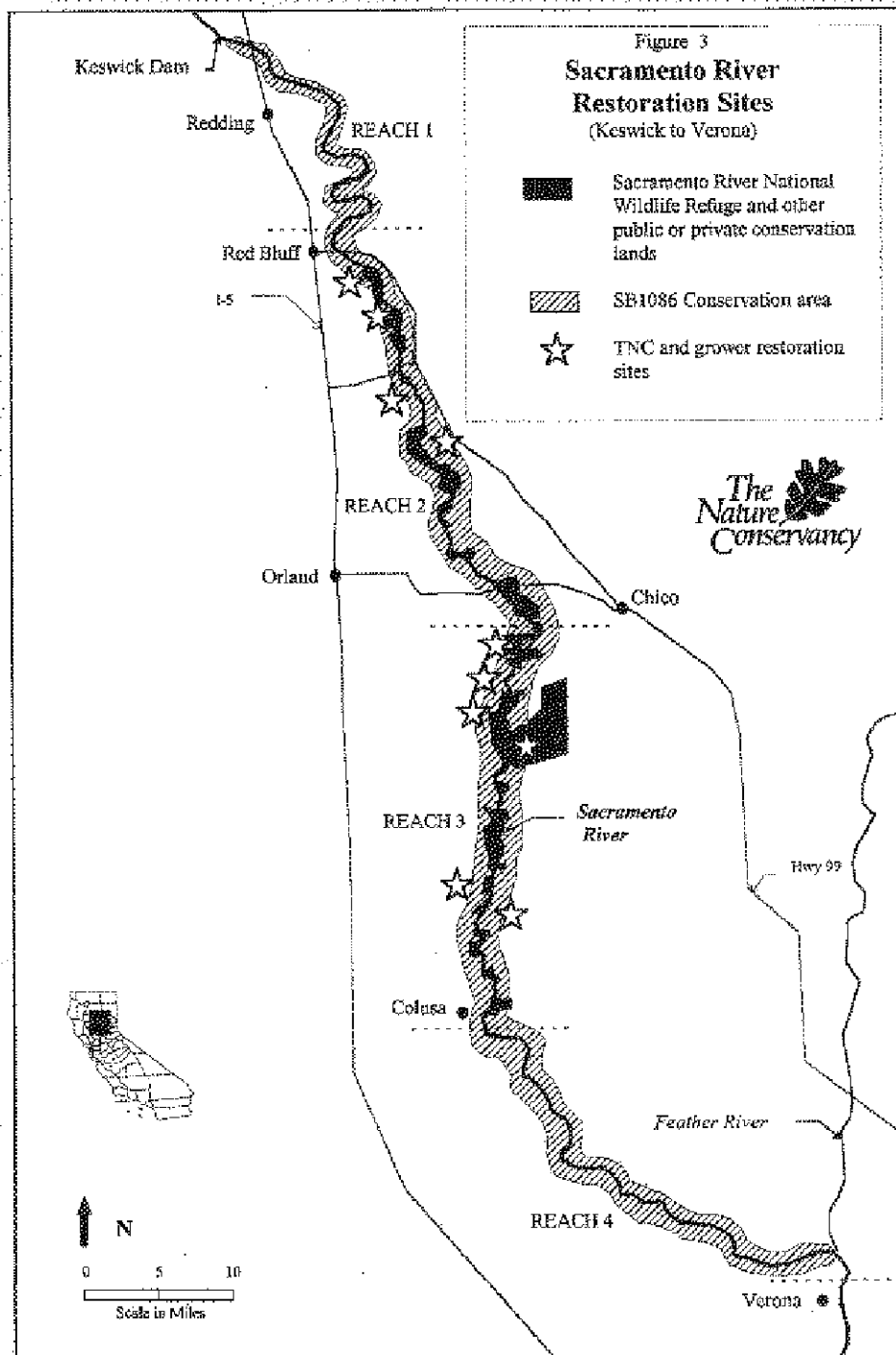


Figure 1  
SACRAMENTO RIVER LOCATION MAP



*Figure 2:  
Examples of Riparian Restoration:  
Kopta Slough*







*Figure 4: Sacramento River Stream Meander: Between Red Bluff and Los Molinos*

## FIGURE 5: SPECIES AND HABITATS THAT WILL BENEFIT FROM PROJECT

The following list represents species and habitats of particular interest or concern that are found within the Sacramento River Conservation Area and will benefit from land acquisition and habitat restoration.

### Species and Species Groups

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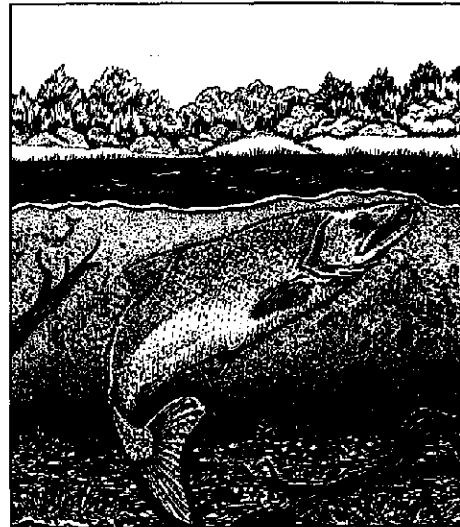
White and green sturgeon  
Winter-run chinook salmon  
*(federally and state listed endangered)*  
Spring-run chinook salmon  
Fall-run chinook salmon  
Late-Fall run chinook salmon  
Steelhead trout *(federally threatened)*  
Resident fish guild including Sacramento perch,  
Sacramento blackfish and Sacramento splittail  
Giant garter snake  
*(federally and state listed threatened)*  
Red-legged frog *(federally listed threatened)*  
Western pond turtle  
Long-eared owl  
Sharp-shinned hawk  
Cooper's hawk  
Swainson's hawk *(state listed threatened)*  
White-tailed kite  
Clapper rail  
Western yellow-billed cuckoo *(state listed threatened)*  
Bank swallow *(state listed threatened)*  
Neo-tropical migratory bird guild including riparian obligates like the Blue grossbeak,  
Willow fly catcher, cuckoos  
Shore bird guild  
Wading bird guild  
Water fowl guild such as mallard, teal and wood ducks  
Valley elderberry long-horned beetle *(federally listed threatened)*

Many of the above species are designated as California Species of Concern.

### Habitats

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Seasonal wetland and aquatic habitat  
Instream aquatic habitat  
Shaded riverine aquatic habitat  
Riparian woodland habitat  
Compatibly managed agricultural lands



Winter-run chinook salmon and habitat

TABLE 1: RESTORATION UNIT TASK TIMELINE FOR REFUGE SITES

ACTIVITIES AND TASKS	RESPONSIBLE PARTY	YEAR 1				YEAR 2				YEAR 3			
		W	SP	SU	F	W	SP	SU	F	W	SP	SU	F
I. PLANNING													
Site Evaluation	TNC												
Restoration Plan	TNC												
II. PROPAGATION													
Seed Collection	TNC/Contractor												
Nursery	Contractor												
Cuttings Collection	TNC/Contractor												
III. FIELD WORK													
Field Preparation	Contractor												
Layout	Contractor												
Planting	Contractor												
IV. MAINTENANCE													
Irrigation	Contractor												
Weed Control	Contractor												
Field Monitoring	TNC, USFWS & PRBO												

\*1 Cottonwood and willow cuttings and nursery grown container stock

\*2 Acorns



**TABLE 2: BIBLIOGRAPHY OF PROJECT-RELATED REPORTS,  
DOCUMENTS, AND PUBLICATIONS**

Academic

Hubbell, J. 1997. Competitive effects of alfalfa on survival, growth, and water relations of *Quercus lobata* seedlings. Master of Arts Degree, California State University, Chico.

\*McAlexander, L.B. 1994. Species-area relations of breeding birds on the Sacramento River, California. Master of Science degree, California State University, Chico.

\*Souza, J.S. 1995. Species richness of medium-sized carnivores in response to riparian patch size on the middle Sacramento River. Master of Science Degree in Agriculture, Calif State Univ., Chico.

*\*Funded by The Nature Conservancy*

Inventory and Monitoring

Buer, Kohl. 1994. Sacramento River Bank Erosion Investigation Memorandum Progress Report. CA Dept. of Water Resources, Red Bluff.

Buer, Kohl. 1994. Sacramento River Future Erosion Investigation Red Bluff to Chico Landing Memorandum Progress Report. CA Dept. of Water Resources, Red Bluff.

Geupel, G.R. and G. Ballard. 1995. Status and distribution of the landbird avifauna along riparian corridors of the Sacramento River national wildlife refuge: results of the 1994 field season.

Geupel, G.R. 1995. Population status and habitat associations of songbirds along riparian corridors of the lower Sacramento River: Results from the 1995 season and summary of results 1993 to 1995. A report of the Point Reyes Bird Observatory, Stinson Beach, CA.

Kiener, A. and G.R. Geupel. 1997. Songbird response to revegetation efforts at Stony Creek and other Nature Conservancy sites along the Sacramento River: Results from the 1996 field season. A report of the Point Reyes Bird Observatory, Stinson Beach, CA.

### Publications

- Griggs, T. 1990. Valley oaks: Can they be saved? *Fremontia* 18(3):48-51.
- Griggs, F.T. 1993. Protecting biological diversity through partnerships: The Sacramento river Project. in *Interface between ecology and land development in California*, edited by J.E. Keeley. Pub. by Southern California Academy of Sciences, Los Angeles.
- Griggs, F.T., V. Morris, E. Denny. 1993. Five years of valley oak riparian forest restoration. *Fremontia* 22(2):13-17.
- Griggs, F.T. 1993. Restoration returns moments of wildness to the banks of the Sacramento River. *Pacific Discovery* 46(1):12-20.
- Griggs, F.T. 1994. Adaptive management strategy helps assure cost-effective, large-scale riparian forest restoration (California). *Restoration and Management notes* 12:1 pg. 80.
- Griggs, F.T. and D.R. Peterson. 1997. Evaluation and Costs for Valley oak riparian forest restoration on the Sacramento River. Proc. of a Symp. on Oak Woodlands: Ecology, Management, and Urban interface issues. USDA Forest Service General Technical Report PSW-GTR-160.
- Hujik, P. and F.T. Griggs. 1995. Cutting size, horticultural treatments affects survival and growth of riparian species (California). *Restoration and Management Notes* 13:2, pp. 219-220.
- Hujik, P. and F. T. Griggs. 1995. Field-seeded riparian trees and shrubs thrive in non-irrigated plots (California). *Restoration and Management Notes* 13:2, pp. 220-221.
- Sheehan, R. and T. Griggs. 1994. Adaptive management strategy used to determine duration of irrigation in riparian forest restoration (California). *Restoration and Management Notes* 12:1, pg.81.

### Internal Reports and Plans

- Hubbell, J.G. 1994. First and second year results of riparian restoration experiments and suggestions for future experiments at Parrott Ranch, Sacramento River, CA.

## V. Costs and Schedules to Implement Proposed Project

### a. Budget costs

The total project request is **\$2,122,000** (see Table 3, following Section V).

In the Conservancy budget, "Service Contracts" and "Materials and Acquisition Contracts" include costs for contracting out various restoration activities such as propagation, field work, and some aspects of maintenance. The applicants will subcontract with local growers to conduct planting and site maintenance. Growers will be chosen according to their ability to deliver a quality product at a reasonable price. We will contract with California State University-Chico, given their proven track record, to conduct plant materials propagation. We will contract with SDSU Production Center to produce the video, given his extensive background and familiarity with Sacramento issues and partners. We will also contract out for the floodplain restoration monitoring component.

In the U.S. Fish and Wildlife Service budget, "Direct Salary and Benefits" includes costs for review and approval of unit plans, site selection and planting review to ensure that implementation of unit plans meets Refuge requirements. "Miscellaneous and other Direct Costs" includes costs for identifying and delineating Refuge restoration sites (eg. fencing and signage) and other direct costs (eg. travel, permitting and supplies).

Funds committed or anticipated for other restoration efforts along the river, and not part of this request:

<u>Funding Partner</u>	<u>Committed</u>
Coop. Land Mgt. Agreement*	\$ 350,000/yr (approx)
US EPA (through SWRCB)	\$ 109,200 (approx)
USFWS/TNC Flood Money Cooperative Agreement	\$ 3,237,500
USFWS/TNC Pine Creek Cooperative Agreement	\$ 1,257,918
Category III (1997)	\$ 1,292,500

\*These funds are generated from a cooperative land management agreement between the Conservancy and the Service whereby the Conservancy agrees to restore Refuge lands to riparian forest.

The Nature Conservancy will be the applicant which executes the contract with CALFED for receipt of grant funds. The Conservancy will assume decision-making authority and liability with regard to expenditure of these funds and the overall success of the project.

If CALFED and its allied funding sources are unable to fulfill our entire funding needs on this project, we will raise additional funds from other sources and, if necessary, scale down the project to match the available funds.

### b. Schedule milestones

Planting on approximately 400 acres will be completed at the end of the first year following the award of funds. Maintenance and monitoring programs will be in place by the beginning of year two.

Floodplain restoration monitoring plan will be developed in year one and implemented in years two and three.

Video footage will be completed in spring following award of funds. The video will be completed in July of that same year.

**c. Third party impacts**

There are several potential third-party impacts which have been considered and addressed in developing this proposal:

- **Displacement of local agriculture.** The applicants' goal is to have a gradual transition from farming to wildlands and to involve local growers in this process as much as possible. Flood-prone lands will be farmed until market trends or flood events make these farms no longer economically viable; at that point, these farmlands will be restored into wildlands through restoration contracts with the local community. In some instances we may restore land based on its potential biological value. We have developed riparian restoration into a new and profitable agricultural enterprise for growers along the northern Sacramento River. In addition, retirement of flood-prone agricultural lands will help reduce downward price pressures caused by the overproduction of certain crops (e.g., prunes).
- **Introduction of pest species problematic to adjacent farm lands due to reduced pesticide use on Refuge lands.** The Service and the Conservancy currently manage 3,150 acres of farmland using integrated pest management practices. Notwithstanding very restrictive lease requirements on pesticide use and farming practices, the program has had a waiting list for the last five years of growers interested in leasing these properties. It is also important to note that we have received very few pest-related complaints from other landowners during this period. The CSUC School of Agriculture has been actively engaged in working with TNC, the Service and DFG in this area.
- **Flood management impacts.** Observations of previously restored acres in the project area suggest that riparian vegetation will slow down the flow of floodwaters which will increase the river's capacity to hold water. It is hoped that restoration practices will result in more cost-effective flood control measures in the long run. Widening the floodplain will allow waters to flow over a greater surface area, reducing pressure on existing levee systems. A floodplain forest will filter floating debris and sediments from floodwaters, thus protecting adjacent agricultural lands.

**TABLE 3: PROJECT BUDGET TABLE****Budget - The Nature Conservancy**

Project Phase and Task	Direct Labor Hours	Direct Salary and Benefits	Overhead Labor (General, admin and fee)	Service Contracts	Material and Acquisition Contracts	Miscellaneous and other Direct Costs	Total Cost
Restoration, Maintenance, Monitoring	6,000	185,000	37,000	1,400,000	240,000		1,862,000
Floodplain Restoration Monitoring				100,000*			100,000
Educational Video				20,000			20,000
<b>TOTAL</b>	<b>6,000</b>	<b>185,000</b>	<b>37,000</b>	<b>1,520,000</b>	<b>240,000</b>		<b>1,982,000</b>

Indirect costs are calculated on salary and benefits at 20%, The Nature Conservancy's federally approved indirect cost rate.

The Nature Conservancy anticipates contributing direct salary, benefits and overhead to develop and administer contracts for the project-wide floodplain monitoring and video creation. The Conservancy's total contribution would be approximately \$10,000.

\*This component is also a part of the "Floodplain Acquisition and Management on the Sacramento River" proposal--the \$100,000 reflected in the above budget will only be necessary if this monitoring program is not funded in the other proposal.

**Budget - U.S. Fish and Wildlife Service**

Project Phase and Task	Direct Labor Hours	Direct Salary and Benefits	Overhead Labor (General, admin and fee)	Service Contracts	Material and Acquisition Contracts	Miscellaneous and other Direct Costs	Total Cost
Restoration, Maintenance, Monitoring		70,000				70,000	140,000
<b>TOTAL</b>		<b>70,000</b>				<b>70,000</b>	<b>140,000</b>

**TOTAL REQUEST: \$2,122,000**

## VI. Applicant Qualifications

*The Nature Conservancy* is an international, private, non-profit membership organization whose mission is to preserve plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive. The Conservancy has more than 45 years of experience in identifying, protecting, and managing significant natural areas. The operator of the largest private system of nature sanctuaries in the world, the Conservancy owns and manages more than 1,500 preserves throughout the U.S. Its strength and reputation are built on the application of the best conservation science available and the building of partnerships with local communities, private organizations and public agencies to achieve mutual conservation goals.

The Nature Conservancy of California uses a wide variety of tools to help forge solutions to conservation issues. We employ the following four methods most frequently: land acquisition; land management and restoration; land use planning and conflict resolution; and community education and outreach.

Several of The Nature Conservancy's landmark conservation projects — in the Cosumnes River, Santa Margarita River, and Sacramento River watersheds — have focused on the protection and restoration of riparian ecosystems. Conservation efforts for these complex natural communities must include maintaining and restoring the natural processes that are essential to the long-term health of the hydrological system. In addition, The Nature Conservancy strives to balance the protection and restoration of natural communities with compatible human uses.

The Conservancy began acquiring land along the Sacramento River in 1988 and has assisted the U.S. Fish and Wildlife Service in acquiring 8,600 acres for conservation in the Sacramento River National Wildlife Refuge. Since then, the Conservancy has increased its efforts on the river and is dedicating significant resources to do the following: assist in the acquisition of additional Refuge lands; purchase and hold conservation easements; implement large scale riparian forest restoration; and engage the local community in a wildlife-compatible agriculture program. The Conservancy hopes that successes here will provide a sustainable land use model for the region.

The *U.S. Fish and Wildlife Service* manages the Sacramento River National Wildlife Refuge, a system of floodplain properties along the river between Red Bluff and Colusa. Their ultimate goal is to protect 18,000 acres for rare species. These efforts include acquisition and restoration of native riparian habitat and monitoring habitat use by wildlife.

*Jack Ofield, of San Diego State University*, is a leading independent film and television producer-director-writer who has created more than 100 productions for PBS, ABC, CBS, CBC, BBC and Eurovision. He is filmmaker in residence and professor of film in the Department of Telecommunications and Film at SDSU, where he founded and directs the Production Center for Drama and Documentary. In 1998, the Production Center completed a 10-minute film on Sacramento River restoration as part of a student project. This previous experience will enhance the education component of the current proposal.

As mentioned earlier, the restoration efforts described above are complemented by a companion piece **Floodplain Acquisition and Management on the Sacramento River** submitted under a separate cover.

Efforts to restore the Sacramento River ecosystem have been on-going for many years and are supported by a broad array of public and private partners. In addition to the applicants for this project, partners include US Bureau of Land Management, California Department of Water Resources, California State University at Chico, Point Reyes Bird Observatory, and local landowners and growers. Critical to the success of the project has been the diversity of partners supporting restoration, and the inclusion of local landowners and other entities with a serious investment in the environmental and economic health of the region.

## **VII. Compliance with Standard Terms and Conditions**

While The Nature Conservancy's systems comply with OMB Circulars A-110, A-122 and A-133, our accounting systems do not currently comply with all provisions of the cost accounting standards (which are applicable to federal procurement contracts). Therefore, the Conservancy would strongly prefer a grant or cooperative agreement. In addition, given the definitions in federal law, it would appear that this type of project would most reasonably fall under a grant or cooperative agreement.

## U.S. Department of the Interior

**Certifications Regarding Debarment, Suspension and  
Other Responsibility Matters, Drug-Free Workplace  
Requirements and Lobbying**

Persons signing this form should refer to the regulations referenced below for complete instructions:

**Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions -** The prospective primary participant further agrees by submitting this proposal that it will include the clause titled, "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions. See below for language to be used or use this form for certification and sign. (See Appendix A of Subpart D of 43 CFR Part 12.)

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions -** (See Appendix B of Subpart D of 43 CFR Part 12.)

**Certification Regarding Drug-Free Workplace Requirements - Alternate I. (Grantees Other Than Individuals) and Alternate II. (Grantees Who are Individuals) -** (See Appendix C of Subpart D of 43 CFR Part 12.)

Signature on this form provides for compliance with certification requirements under 43 CFR Parts 12 and 18. The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of the Interior determines to award the covered transaction, grant, cooperative agreement or loan.

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**PART A: Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions**

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*CHECK ☒ IF THIS CERTIFICATION IS FOR A PRIMARY COVERED TRANSACTION AND IS APPLICABLE*

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- (1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal department or agency;
  - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
  - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
  - (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- (2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.
- 

**PART B: Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions**

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*CHECK ☐ IF THIS CERTIFICATION IS FOR A LOWER TIER COVERED TRANSACTION AND IS APPLICABLE*

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- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

DI-2010  
June 1996  
(This form replaces DI-1863, DI-1864,  
DI-1865, DI-1866 and DI-1867)



**PART C: Certification Regarding Drug-Free Workplace Requirements**

**CHECK ☒ IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS NOT AN INDIVIDUAL**

**Alternate I. (Grantees Other Than Individuals)**

**A. The grantee certifies that it will or continue to provide a drug-free workplace by:**

- (a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;
- (b) Establishing an ongoing drug-free awareness program to inform employees about—
  - (1) The dangers of drug abuse in the workplace;
  - (2) The grantee's policy of maintaining a drug-free workplace;
  - (3) Any available drug counseling, rehabilitation, and employee assistance programs; and
  - (4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
- (c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);
- (d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will —
  - (1) Abide by the terms of the statement; and
  - (2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;
- (e) Notifying the agency in writing, within ten calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification numbers(s) of each affected grant;
- (f) Taking one of the following actions, within 30 calendar days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted —
  - (1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
  - (2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;
- (g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a) (b), (c), (d), (e) and (f).

**B. The grantee may insert in the space provided below the site(s) for the performance of work done in connection with the specific grant:**

Place of Performance (Street address, city, county, state, zip code)

Check ☐ if there are workplaces on file that are not identified here.

**PART D: Certification Regarding Drug-Free Workplace Requirements**

**CHECK ☐ IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS AN INDIVIDUAL**

**Alternate II. (Grantees Who Are Individuals)**

- (a) The grantee certifies that, as a condition of the grant, he or she will not engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in conducting any activity with the grant;
- (b) If convicted of a criminal drug offense resulting from a violation occurring during the conduct of any grant activity, he or she will report the conviction, in writing, within 10 calendar days of the conviction, to the grant officer or other designee, unless the Federal agency designates a central point for the receipt of such notices. When notice is made to such a central point, it shall include the identification number(s) of each affected grant.

DI-2010  
June 1996  
(This form replaces DI-1963, DI-1964,  
DI-1965, DI-1986 and DI-1983)

**PART E: Certification Regarding Lobbying**  
**Certification for Contracts, Grants, Loans, and Cooperative Agreements**

*CHECK IF CERTIFICATION IS FOR THE AWARD OF ANY OF THE FOLLOWING AND THE AMOUNT EXCEEDS \$100,000: A FEDERAL GRANT OR COOPERATIVE AGREEMENT; SUBCONTRACT, OR SUBGRANT UNDER THE GRANT OR COOPERATIVE AGREEMENT.*

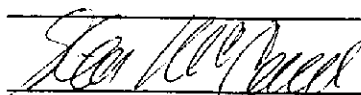
*CHECK IF CERTIFICATION IS FOR THE AWARD OF A FEDERAL LOAN EXCEEDING THE AMOUNT OF \$150,000, OR A SUBGRANT OR SUBCONTRACT EXCEEDING \$100,000, UNDER THE LOAN.*

The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

As the authorized certifying official, I hereby certify that the above specified certifications are true.



SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL

Steve McCormick, California Regional Director, The Nature Conservancy

TYPED NAME AND TITLE

DATE

01-2010  
June 1998  
(This form replaces 01-1863, 01-1864,  
01-1963, 01-1968 and 01-1965)